

WHAT IS CLAIMED IS:

1. A method of compressing a color cell including a plurality of pixels, said method comprising:
 - (a) determining a vector that represents a best-fit of color values of said pixels;
 - (b) distributing at least four representative color values along said vector;
 - (c) comparing color values of said pixels with said representative color values;
 - (d) generating at least two bitmasks to represent said color cell, said bitmasks for storing data identifying one of said representative color values that is closest to a color value of a corresponding texel; and
 - (e) appending said four representative color values to said bitmasks.
2. The method as recited in claim 1 wherein said step of determining comprises the step of finding a plurality of eigenvalues of a covariance matrix representative of said color cell.
3. The method as recited in claim 1 wherein said step of distributing comprises the step of finding a minimum energy solution with an energy weighing function.
4. A method of compressing a color cell including a plurality of texels, said method comprising:
 - (a) determining a vector that represents a best-fit of color values of said texels;
 - (b) distributing at least four representative color values along said vector;

- (c) comparing color values of said texels with said representative color values;
 - (d) generating at least two bitmasks to represent said color cell, said bitmasks for storing data identifying one of said representative color values that is closest to a color value of a corresponding texel; and
 - (e) appending said four representative color values to said bitmasks.
5. The method as recited in claim 4 wherein said step of determining comprises the step of finding a plurality of eigenvalues of a covariance matrix representative of said color cell.
6. The method as recited in claim 4 wherein said step of distributing comprises the step of finding a minimum energy solution with an energy weighing function.
7. A method of compressing a color cell comprising:
determining a best-fit vector for color values of texels of the color cell;
distributing a plurality of representative color values along the best-fit vector;
comparing color values of the texels with the representative color values;
generating a plurality of bitmasks to represent the color cell, wherein the bitmasks identify a representative color value closest to a color value of a corresponding texel; and
appending the representative color values to the bitmasks.
8. The method as recited in claim 7 wherein said step of determining further comprises finding eigenvalues of a covariance matrix representative of said color cell.

9. The method as recited in claim 7 wherein said step of distributing further comprises finding a minimum energy solution with an energy weighing function.